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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,231	11/16/1999	RAYMOND M. BROEMMELSIEK	4919	4055

7590 02/26/2002

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EXAMINER

CHUNG, DANIEL J

ART UNIT PAPER NUMBER

2672

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

GC

**Office Action Summary**

Application No.

09/441,231

Applicant(s)

BROEMMELSIEK, RAYMOND M.

Examiner

Daniel J Chung

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other:

### DETAILED ACTION

Claims 1-21 and 25-26 are presented for examination. This office action is in response to the amendment filed on 12-28-2001.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broemmelsiek (5,574,836) in view of Goldberg et al (5,963,203).

Regarding claim 1, Broemmelsiek discloses that the claimed feature of a method of displaying a series of images according to a user's position relative to a display screen, (See Abstract, Fig 2) said display method comprising:

Displaying a first image from the series of images (See Abstract, col 19 line 65-col 20 line 9)

Receiving information regarding a change in the user's position relative to the display screen ["view position data may be employed to determined..."] (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20)

Displaying a second image from the series of images in response to the change in the user's position ["...display from an arbitrary view position"] (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20)

Broemmelsiek does not specifically disclose that "a first image from the series of images". However, Goldberg et al discloses that a series of image with the user can manipulate the displayed image by designating different viewing positions. (See Abstract, Fig 4, Fig 5) The motivation would have been to provide the motion of an object, view angle change between the object and viewer, and various other effects, as mentioned in the teaching of Broemmelsiek. (See col 19 line 65-col 20 line 9) Therefore, it would have been obvious to one skilled in the art to incorporate "the series of images" into the teaching of Broemmelsiek.

Regarding claim 2, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the series of image is a series of 2 dimensional images. (Fig 2; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 3, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the change in the user's position is determined by a change in the user's head position. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 4, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the second image is an image from the series of images determined by the user's head position where the change in the user's head position is a result of movement selected from the group consisting of left head roll, right head roll, up tilt, down tilt, right translation, left translation, forward translation and backward translation. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 5, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the right translation and left translation produce a continuous rotation of images in the series of images. (See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 6, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the second image is the first image displayed with new display characteristics. (See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 8, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that the first image is a center image of the series of images. (See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 9, refer to the discussion for the claim 1 hereinabove, Broemmelsiek discloses that if the second image is not available to be displayed then

an available image in the series of images closest to the second image id displayed.

(See Fig 2, Fig 7; also See Fig 4, Fig 5 in Goldberg)

Regarding claim 25, Claim 25 is the corresponding computer readable medium of claim 1. Thus, the rejection to claim 1 hereinabove is also applicable to claim 25.

Claims 10-21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broemmelsiek in view of Goldberg et al, and further in view of Davidson et al (6,208,349)

Regarding claim 10, Broemmelsiek discloses that the claimed feature of a method of simultaneously receiving, displaying and interacting with a series of images in response to movement of an interactive device, (See Abstract, Fig 2) said display method comprising:

a) receiving for display a first image from the series of images (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20, col 19 line 65-col 20 line 9)

b) receiving for display subsequent images from the series of images (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20, col 19 line 65-col 20 line 9)

c) permitting viewing of and interacting with the first image while performing step b) where interaction with the first image is in response to signals from the interactive

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device. (See Abstract, Fig 2, col 3 line 60-col 4 line 49, col 7 line 13-col 9 line 20, col 20 line 42+)

Broemmelsiek does not specifically disclose that "a first image from the series of images". However, Goldberg et al discloses that a series of image with the user can manipulate the displayed image by designating different viewing positions. (See Abstract, Fig 4, Fig 5) The motivation would have been to provide the motion of an object , view angle change between the object and viewer, and various other effects, as mentioned in the teaching of Broemmelsiek. (See col 19 line 65-col 20 line 9) Therefore, it would have been obvious to one skilled in the art to incorporate "the series of images" into the teaching of Broemmelsiek.

Also, Broemmelsiek does not explicitly disclose that "interactive device". However, such feature of claimed limitation is shown in the teaching of Davidson et al. (See Abstract, Fig 1-5, col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30) The motivation would have been to provide efficient way of a simulated interactive based on the positions of viewer. Therefore, it would have been obvious to one skilled in the art to incorporate the teaching of Davidson et al into the teaching of Broemmelsiek.

Regarding claim 11, claim 11 is similar in scope to the claim 2, and thus the rejection to claim 2 hereinabove is also applicable to claim 11.

Regarding claim 12, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the signals from the interactive device represent movement of the interactive device. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claim 13, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the step of displaying a second image in response to movement of the interactive device. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claim 14, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the second image is an image from the series of images determined by the movement of the interactive device where the movement is selected from the group consisting of left movement right movement, forward movement and backward movement. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)



Regarding claim 15, claim 15 is similar in scope to the claim 5, and thus the rejection to claim 5 hereinabove is also applicable to claim 15.

Regarding claims 16-19, refer to the discussion for the claim 10 hereinabove, Broemmelsiek discloses that the interactive device is that of a tracking ball/ joystick/ body part movement/ the head. (See Fig 2, Fig 7, col 3 line 16-18; also See Fig 4, Fig 5 in Goldberg; also See col 2 line 16-36, col 3 line 59-col 4 line 34, col 5 line 19-30 in Davidson)

Regarding claims 20-21, claims 20-21 are similar in scope to the claims 8-9, and thus the rejections to claims 8-9 hereinabove are also applicable to claims 20-21.

Regarding claim 26, Claim 26 is the corresponding computer readable medium of claim 10. Thus, the rejection to claim 10 hereinabove is also applicable to claim 26.

### ***Response to Arguments/Amendments***

Applicant's arguments and amendments received on 12-28-2001 have been carefully considered. However, they are not persuasive, and they do not overcome the previous rejections, which have been maintained. Thus, the finality of this office action is deemed proper.

In response to applicant's argument that there is no suggestion to combine the references, (See Remarks p.5 line 9-17, p.6 line 13-14, p.7 line 16-24, p. 8 line 12-17) the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have obvious to one having ordinary skill in the art at the time of Applicant's invention to combine the teaching of Broemmelsiek and Goldberg and Davidson, because they all relate to the method of viewing/displaying the objects in conjunction with a different view positions, and the teachings/suggestions in Broemmelsiek (See col 19 line 65-col 20 line 9) regarding "the object can be animated at display refresh rates by cycling through the images" provide the motivation to incorporate "the series of images" of Goldberg into the teaching of Broemmelsiek in order to produce the display system with handling of various type of source objects.

In response to applicant's argument that the cited reference are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir.

1992). In this case, each of the cited reference relate to viewing/displaying the objects[80,82 in Broemmelsiek;BF1-BF6 in Goldberg] in conjunction with a different view positions[p, p' in Broemmelsiek; A,B,C in Goldberg] (See Fig 2A,2B,2C in Broemmelsiek, Fig 4 in Goldberg, Abstract in Davidson) Specifically, as admitted by Applicant's Remarks, Broemmelsiek teaches "viewing an object from multiple angle and changing the position at which the object is viewed:. (See Remarks p.4 line 1-3) Goldberg et al teaches that "display an object form of multiple image from different angle and view points". (See Remarks p.6 line 8-9) Apparently, only distinction between the cited reference is the forms of object[[80,82 in Broemmelsiek; BF1-BF6 in Goldberg] to be viewed, which was the reason to be recited in previous office action by Examiner. (See p. 5 line 4-11 in Rejection) Also, all of cited reference can be classified into the group of "computer graphic processing, operator interface processing, and selective visual display systems", which is defined as U.S class 345(previously 395). (See U.S classification of each cited reference) Therefore, the cited references are clearly in an analogous art.

### ***Conclusion***

Applicant's response and amendment are not persuasive and the previous grounds of rejection have been maintained. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

djc  
February 12, 2002

A handwritten signature in black ink, appearing to read 'Matthew Luu', with a stylized flourish at the end.

**MATTHEW LUU**  
**PRIMARY EXAMINER**